

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

- Draft 2/21/13 -STATIONARY SOURCE PERMIT TO OPERATE

This permit replaces your permit dated November 30, 2005, as amended July 12, 2009 and August 18, 2010.

In compliance with the Federal Clean Air Act and the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution,

QG, LLC 160 Century Lane Winchester, Virginia 22603 Registration No.: 81112 Plant ID No.: 51-069-0102

is authorized to operate

a heatset web offset lithographic printing facility

located at

Stonewall Industrial Park 160 Century Lane, Winchester Frederick County, Virginia

in accordance with the Conditions of this permit.

Approved on:	November 30, 2005
Amendment date:	June 12, 2009
Amendment date:	August 18, 2010
Amendment date:	
	DRAFT
-	Deputy Regional Director, Valley Region

Permit consists of 5 pages. Permit Conditions 1 to 10. Attachment A-Hazardous Air Pollutant List, 5 pages

Quad/Graphics

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APPLICATION

This permit approval is based on the permit applications dated July 22, 2005, March 20, 2009, July 20, 2010, and December 20, 2012, including amendment information dated May 5, 2009 and supplement information dated February 12, 2013. Any changes in the permit application specifications or any existing facilities which alter the impact of the facility on air quality may require a permit. Failure to obtain such a permit prior to construction may result in enforcement action. In addition, this facility may be subject to additional applicable requirements not listed in this permit.

Words or terms used in this permit shall have meanings as provided in 9 VAC 5-10-20 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution. The regulatory reference or authority for each condition is listed in parentheses () after each condition.

Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate a prompt response by the permittee to requests by the DEQ or the Board for information to include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the DEQ will either be in writing or by personal contact.

The availability of information submitted to the DEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, §§ 2.2-3700 through 2.2-3714 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board) of the Code of Virginia, and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.

PROCESS REQUIREMENTS

1. **Equipment List** - Equipment to be operated at this facility consists of:

Reference No.	Equipment Description	Rated Capacity
P1	Rockwell Goss C-700 heatset web offset	Rated at 2040 feet per minute and web widths
	lithographic printing press consisting of four	of 66 inches
	printing units	
P2	Rockwell Goss C-700 heatset web offset	Rated at 2040 feet per minute and web widths
	lithographic printing press consisting of four	of 66 inches
	printing units	
P9	Harris N-900 III heatset web offset lithographic	Rated at 390 pounds ink per hour
	printing press	
P12	Manroland Lithoman heatset web printing press	Press web rated at 389 pounds ink per hour
P13	Manroland Lithoman heatset web printing press	Press web rated at 389 pounds ink per hour
P14	Goss C 500 hootset web printing pross	1760 feet per minute and 98.9 pounds ink per
Γ14	Goss C-500 heatset web printing press	hour
P15	Goss C-500 heatset web printing press	1760 feet per minute and 98.9 pounds ink per
113	Goss C-300 heatset web printing press	hour
-	Safety Kleen solvent parts washing operations	-

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Reference No.	Equipment Description	Rated Capacity	
-	Plate cleaning operations	-	

(9 VAC 5-80-800)

OPERATING/EMISSION LIMITATIONS

2. **Emission Limits: Hazardous Air Pollutants** - Hazardous air pollutant (HAP) emissions, as defined by §112(b) of the Clean Air Act, from the facility shall not exceed 9.9 tons per year of any individual HAP or 24.9 tons per year of any combination, calculated monthly as the sum of each consecutive 12-month period. HAPs which are not accompanied by a specific Chemical Abstracts Service (CAS) number (as listed in Attachment A) shall be calculated as the sum of all compounds containing the named chemical when determining compliance with the individual HAP emissions limitation of 9.9 tons per year. (9 VAC 5-80-850)

RECORDS

- 3. **On Site Records -** The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with DEQ. These records shall include, but are not limited to:
 - a. Monthly and annual throughput (in gallons) of each HAP-containing material used at the facility. Annual throughputs shall be calculated monthly as the sum of each consecutive 12-month period.
 - b. Monthly and annual emissions (in tons) to verify compliance with the individual and total HAP emission limitations in Condition 2. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.
 - c. Material Safety Data Sheets (MSDS) or other vendor information showing HAP content for each material used at the facility.

These records shall be available for inspection by DEQ and shall be current for the most recent five years.

(9 VAC 5-80-900 and 9 VAC 5-50-50)

GENERAL CONDITIONS

- 4. **Right of Entry** The permittee shall allow authorized local, state, and federal representatives, upon the presentation of credentials:
 - a. To enter upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;
 - b. To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations;

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- c. To inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and
- d. To sample or test at reasonable times.

For purposes of this condition, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency. (9 VAC 5-170-130 and 9 VAC 5-80-850)

- 5. Notification for Facility or Control Equipment Malfunction The permittee shall furnish notification to DEQ of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one hour, by facsimile transmission, telephone or telegraph. Such notification shall be made as soon as practicable but no later than four daytime business hours after the malfunction is discovered. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within two weeks of discovery of the malfunction. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify DEQ.

 (9 VAC 5-20-180 C and 9 VAC 5-80-850)
- 6. **Violation of Ambient Air Quality Standard** The permittee shall, upon request of DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated. (9 VAC 5-20-180 I and 9 VAC 5-80-850)
- 7. **Maintenance/Operating Procedures** At all times, including periods of startup, shutdown and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:

- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
- b. Maintain an inventory of spare parts.
- c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
- d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such

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equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.

(9 VAC 5-50-20 E and 9 VAC 5-80-850)

- 8. **Permit Suspension/Revocation** This permit may be suspended or revoked if the permittee:
 - a. Knowingly makes material misstatements in the application for this permit or any amendments to it;
 - b. Fails to comply with the conditions of this permit;
 - c. Fails to comply with any emission standards applicable to a permitted emissions unit;
 - d. Causes emissions from this facility which result in violations of, or interferes with the attainment and maintenance of, any ambient air quality standard;
 - e. Fails to operate this facility in conformance with any applicable control strategy, including any emission standards or emission limitations, in the State Implementation Plan in effect on the date that the application for this permit is submitted;
 - f. Fails to comply with the applicable provisions of Articles 6, 8 and 9 of 9 VAC 5 Chapter 80.

(9 VAC 5-80-1010)

- 9. **Change of Ownership** In the case of a transfer of ownership of a stationary source, the new owner shall abide by any current permit issued to the previous owner. The new owner shall notify DEQ of the change of ownership within 30 days of the transfer. (9 VAC 5-80-940)
- 10. **Permit Copy** The permittee shall keep a copy of this permit on the premises of the facility to which it applies.

(9 VAC 5-80-860 D)

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ATTACHMENT A – HAZARDOUS AIR POLLUTANT LIST

Note 1: Emissions for pollutant listings which do not have a specific CAS number must be totaled when determining major source applicability under Title V and for HAP regulations (i.e. 112(g) & (d)).

CAS	<u>#</u>		NAME
see N	Note 1		ANTIMONY COMPOUNDS ¹
see Note 1			ARSENIC COMPOUNDS
see Note 1			BERYLLIUM COMPOUNDS
see Note 1			CADMIUM COMPOUNDS
see N	Note 1		CHROMIUM COMPOUNDS
see N	Note 1		COBALT COMPOUNDS
see N	Note 1		COKE OVEN EMISSIONS
see N	Note 1		CYANIDE COMPOUNDS ²
see N	Note 1		GLYCOL ETHERS ³
see N	Note 1		LEAD COMPOUNDS
see N	Note 1		MANGANESE COMPOUNDS
see N	Note 1		MERCURY COMPOUNDS
see N	Note 1		NICKEL COMPOUNDS
see N	Note 1		POLYCYCLIC ORGANIC MATTER/POM ⁴
see N	Note 1		SELENIUM COMPOUNDS
CAS	#		NAME
50	00	0	FORMALDEHYDE
51	28	5	2,4-DINITROPHENOL
51	79	6	ETHYL CARBAMATE/URETHANE
53	96	3	2-ACETYLAMINOFLUORENE
56	23	5	CARBON TETRACHLORIDE
56	38	2	PARATHION
57	14	7	1,1-DIMETHYLHYDRAZINE
57	57	8	BETA-PROPIOLACTONE
57	74	9	CHLORDANE
58	89	9	LINDANE (AND ALL OTHER STEREOISOMERS OF
			1,2,3,4,5,6- HEXACHLOROCYCLOHEXANE)
59	89	2	N-NITROSOMORPHOLINE/NMOR
60	11	7	DIMETHYL AMINOAZOBENZENE/
			4-DIMETHYLAMINOAZOBENZENE
60	34	4	METHYL HYDRAZINE
60	35	5	ACETAMIDE
62	53	3	ANILINE & HOMOLOGUES
62	73	7	DICHLORVOS
62	75	9	N-NITROSODIMETHYLAMINE/NDMA
63	25	2	CARBARYL
64	67	5	DIETHYL SULFATE
67	56	1	METHANOL
67	66	3	CHLOROFORM

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67	72	1	HEVACHI ODOETHANE
67		1	HEXACHLOROETHANE
68	12	2	DIMETHYLFORMAMIDE/
71	12	2	N,N-DIMETHYLFORMAMIDE
71	43	2	BENZENE (INCLUDING BENZENE FROM
-1		_	GASOLINE)
71	55	6	METHYL CHLOROFORM/1,1,1-TRICHLOROETHANE
72	43	5	METHOXYCHLOR
72	55	9	2,2-BIS(P-CHLORPHENYL)-1,1-
			DICHLOROETHYLENE/DDE
74	83	9	METHYL BROMIDE/BROMOMETHANE
74	87	3	METHYL CHLORIDE/CHLOROMETHANE
74	88	4	METHYL IODIDE/IODOMETHANE
75	00	3	ETHYL CHLORIDE/CHLOROETHANE
75	01	4	VINYL CHLORIDE/CHLOROETHYLENE
75	05	8	ACETONITRILE
75	07	0	ACETALDEHYDE
75	09	2	METHYLENE CHLORIDE/DICHLOROMETHANE
75	15	0	CARBON DISULFIDE
75	21	8	ETHYLENE OXIDE
75	25	2	BROMOFORM
75	34	3	1,1-DICHLOROETHANE/ETHYLIDENE DICHLORIDE
75	35	4	VINYLIDENE CHLORIDE/1,1-DICHLOROETHYLENE
75	44	5	PHOSGENE/CARBONYLCHLORIDE
75	55	8	1,2-PROPYLENE IMINE
75	56	9	PROPYLENE OXIDE/1,2-EPOXYPROPANE
76	44	8	HEPTACHLOR
77	47	4	HEXACHLOROCYCLOPENTADIENE
77	78	1	DIMETHYL SULFATE
78	59	1	ISOPHORONE
78	87	5	PROPYLENE DICHLORIDE/1,2-DICHLOROPROPANE
79	00	5	1,1,2-TRICHLOROETHANE
79	01	6	TRICHLOROETHYLENE
79	06	1	ACRYLAMIDE
79	10	7	ACRYLIC ACID
79	11	8	CHLORACETIC ACID
79	34	5	1,1,2,2-TETRACHLOROETHANE
79	44	7	DIMETHYL CARBAMOYL CHLORIDE
79	46	9	2-NITROPROPANE
80	62	6	METHYL METHACRYLATE
82	68	8	PENTACHLORONITROBENZENE/QUINTOBENZENE
84	74	2	DIBUTYL PHTHLATE
85	44	9	PHTHALIC ANHYDRIDE
87	68	3	HEXACHLOROBUTADIENE
87	86	5	PENTACHLOROPHENOL
88	06	2	2,4,6-TRICHLOROPHENYL
90	04	0	O-ANISIDINE
91	20	3	NAPHTHALENE
/ 1	_0	5	- 14 44 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4

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91	22	5	OLUNOLINE
91 91	22 94	1	QUINOLINE 3,3'-DICHLOROBENZIDENE
92	52	4	BIPHENYL
92	67	1	4-AMINODIPHENYL
92	87	5	BENZIDINE
92 92	93	3	4-NITRODIPHENYL
	93 75	3 7	
94	13	,	2,4-D, (DICHLOROPHENOXY/ACETIC ACID) (INCLUDING SALTS AND ESTERS)
95	95	4	2,4,5-TRICHLOROPHENOL
95 95	93 47	6	O-XYLENE
95 95	48	7	O-CRESOL
95 95	53	4	O-TOLUIDINE
95 95	80	7	
93 96	09	3	2,4-TOLUENE DIAMINE/TOLUENE-2,4-DIAMINE STYRENE OXIDE
	12		1,2-DIBROMO-3-CHLOROPROPANE
96 06		8	1,2-DIBROMO-3-CHLOROPROPANE ETHYLENE THIOUREA/ETU
96	45	7	
98	07	7	BENZOTRICHLORIDE
98	82	8	CUMENE
98	86	2 3	ACETOPHENONE
98	95		NITROBENZENE
100	02	7	4-NITROPHENOL
100	41	4	ETHYL BENZENE
100	42	5	STYRENE, MONOMER/VINYL BENZENE
100	44	7	BENZYL CHLORIDE
101	14	4	4,4-METHYLENE BIS(2-CHLOROANILINE)
101	68	8	4,4'-METHYLENEDIPHENYL DIISOCYANATE/MDI
101	77	9	4,4-METHYLENE DIANILINE
106	42	3	P-XYLENE
106	44	5	P-CRESOL
106	46	7	1,4-DICHLOROBENZENE
106	50	3	P-PHENYLENEDIAMINE
106	51	4	QUINONE
106	88	7	1,2-EPOXYBUTANE
106	89	8	EPICHLOROHYDRIN
106	93	4	ETHYLENE DIBROMIDE/EDB/1,2-DIBROMOETHANE
106	99	0	1,3-BUTADIENE
107	02	8	ACROLEIN
107	05	1	ALLYL CHLORIDE
107	06	2	1,2-DICHLOROETHANE/ETHYLENE DICHLORIDE
107	13	1	ACRYLONITRILE
107	21	1	ETHYLENE GLYCOL
107	30	2	CHLOROMETHYL METHYL ETHER/CMME
108	90	7	CHLOROBENZENE
108	05	4	VINYL ACETATE
108	10	1	METHYL ISOBUTYL KETONE/HEXONE
108	31	6	MALEIC ANHYDRIDE
108	38	3	M-XYLENE

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108	39	4	M-CRESOL
108	88	3	TOLUENE
108	95	2	PHENOL
110	54	3	HEXANE
111	42	2	DIETHANOLAMINE
111	44	4	DICHLOROETHYL ETHER/
			BIS(2-CHLOROETHYL)ETHER
114	26	1	PROPOXUR/BAYGON
117	81	7	DI-SEC-OCTYL PHTHLATE/
	01	•	BIS(2-ETHYLHEXYL)PHTHALATE
118	74	1	HEXACHLOROBENZENE
119	90	4	3,3-DIMETHOXYBENZIDINE
119	93	7	3,3-DIMETHYLBENZIDINE
120	80	9	CATECHOL
120	82	1	1,2,4-TRICHLOROBENZENE
121	14	2	2,4-DINITROTOLUENE
121	44	8	TRIETHYLAMINE
121	69	7	DIMETHYLANILINE
122	66	7	1,2-DIPHENYLHYDRAZINE
123	31		
		9	HYDROQUINONE/DIHYDROXYBENZENE
123	38	6	PROPIONALDEHYDE
123	91	1	1,4-DIOXANE/1,4-DIETHYLENEOXIDE
126	99	8	2-CHLORO-1,3-BUTADIENE/BETA-CHLOROPRENE
127	18	4	TETRACHLOROETHYLENE/PERCHLOROETHYLENE
131	11	3	DIMETHYL PHTHALATE
132	64	9	DIBENZOFURANS
133	06	2	CAPTAN
133	90	4	CHLORAMBEN
		5	
140	88		ETHYL ACRYLATE
151	56	4	ETHYLENIMINE
156	62	7	CALCIUM CYANAMIDE
302	01	2	HYDRAZINE
334	88	3	DIAZOMETHANE
463	58	1	CARBONYL SULFIDE
510	15	6	CHLOROBENZILATE
532	27	4	2-CHLOROACETOPHENONE
534	52	1	4,6-DINITRO-O-CRESOL (INCLUDING SALTS)
540	84	1	2,2,4-TRIMETHYLPENTANE
542	07	6	1,3-DICHLOROPROPENE
542	88	1	BIS-(CHLOROMETHYL) ETHER
584	84	9	TOLUENE-2,4-DIISOCYANATE/TDI
593	60	2	VINYL BROMIDE
624	83	9	METHYL ISOCYANATE
680	31	9	HEXAMETHYL PHOSPHORAMIDE/HMPA
684	93	5	N-NITROSO-N-METHYLUREA/NMU
822	06	0	HEXAMETHYLENE DIISOCYANATE
1120	71	4	
1120	/ 1	4	1,3-PROPANE SULTONE

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1319	77	3	CRESOLS/CRESYLIC ACID
1330	20	7	XYLENE ISOMERS AND MIXTURES
1336	36	3	POLYCHLORINATED BIPHENYLS/AROCHLORS
1582	09	8	TRIFLURALIN
1634	04	4	METHYL TERT BUTYL ETHER
1746	01	6	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN
7550	45	0	TITANIUM TETRACHLORIDE
7647	01	0	HYDROGEN CHLORIDE/HYDROCHLORIC ACID
			(GAS ONLY)
7664	39	3	HYDROGEN FLUORIDE/HYDROFLUORIC ACID
7723	14	0	PHOSPHOROUS
7782	50	5	CHLORINE
7803	51	2	PHOSPHINE
8001	35	2	TOXAPHENE/CHLORINATED CAMPHENE

The following pollutants and pollutant source categories are listed as HAPs under section 112(b) but are excluded from the definitions of toxics in the Virginia Regulations:

- 1. Asbestos NESHAP, 40 CFR 61 Subpart M (for asbestos removal, demolition and installation contact Virginia Department of Labor 804/786-8009).
- 2. Fine Mineral Fibers.
- 3. Radionuclides (including radon).

where: n = 1, 2, or 3

R = alkyl C7 or less, or phenyl or alkyl substituted phenyl

R' = H, or alkyl C7 or less, or carboxylic acid ester, sulfate, phosphate, nitrate, or sulfonate

¹ For all listings above which contain the word "compounds" and for glycol ethers, the following applies: Unless otherwise specified, these listings are defined as including any unique chemical substance that contains the named chemical as part of that chemical's infrastructure.

² X'CN where X=H' or any other group where a formal dissociation may occur. For example, KCN or Ca(CN)₂.

³ Glycol ethers include mono- and di-ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-(OCH₂CH₂)_n-OR'

⁴ Includes substituted and/or unsubstituted polycyclic aromatic hydrocarbons and aromatic heterocycle compounds, with two or more fused rings, at least one of which is benzenoid in structure. Polycyclic Organic Matter is a mixture of organic compounds containing one or more of these polycyclic aromatic chemicals which include dioxins and furans. Polycyclic Organic Matter is generally formed or emitted during thermal processes including (1) incomplete combustion, (2) pyrolysis, (3) the volatilization, distillation or processing of fossil fuels or bitumens, or (4) the distillation or thermal processing of non-fossil fuels.